

EXPT: 8 BUILDING AN ANONYMOUS FTP SCANNER USING FTPLIB MODULE

Introduction:

Anonymous FTP servers allow logging in with the username anonymous (often using an email as password). A basic anonymous FTP scanner tries to connect to FTP servers (port 21) and attempts an anonymous login to check whether anonymous access is allowed.

Aim:

Create a small Python script that checks one or more hosts for FTP service and reports whether anonymous login is permitted.

Algorithm:

1. For each target host: try a TCP connection to port 21 (quick reachability check).
2. If reachable, open an ftplib.FTP connection and attempt login('anonymous', 'anonymous@').
3. Record and print whether anonymous login succeeded, was refused, or connection failed.
4. Repeat for all targets.

Code:

```
import ftplib
def anonymousLogin(hostname):
    try:
        ftp = ftplib.FTP(hostname)
        response = ftp.login('anonymous', 'anonymous')
        print(response)
        if "230 Anonymous access granted" in response:
            print('\n[*] ' + str(hostname) +' FTP Anonymous Login Succeeded.')
            print(ftp.getwelcome())
            ftp.dir()
    except Exception as e:
        print(str(e))
        print('\n[-] ' + str(hostname) +' FTP Anonymous Login Failed.')
hostname = 'ftp.be.debian.org'
anonymousLogin(hostname)
```

Output:

```
C:\Users\a8282>cd "C:\Users\a8282\OneDrive\Documents"
C:\Users\a8282\OneDrive\Documents>python anonymous.py
230-Welcome to mirror.as35701.net.

The server is located in Brussels, Belgium.

Server connected with gigabit ethernet to the internet.

The server maintains software archive accessible via ftp, http, https and rsync.

ftp.be.debian.org is an alias for this host, but https will not work with that
alias. If you want to use https use mirror.as35701.net.

Contact: mirror-admin at as35701.net

230 Anonymous access granted, restrictions apply

[*] ftp.be.debian.org FTP Anonymous Login Succeeded.
220 ProFTPD Server (mirror.as35701.net) [2a05:7300:0:100:195:234:45:114]
drwxr-xr-x  9 ftp      ftp          4096 Oct 11 02:45 debian
drwxr-xr-x  5 ftp      ftp          105 Sep  7 06:58 debian-cd
drwxr-xr-x  7 ftp      ftp          4096 Oct 11 02:30 debian-security
drwxr-xr-x  5 ftp      ftp          4096 Oct 13 2006 ftp irc.org
-rw-r--r--  1 ftp      ftp          717 Apr 15 08:10 HEADER.html
drwxr-xr-x  5 ftp      ftp          4096 Oct 11 07:29 mint
drwxr-xr-x  5 ftp      ftp          49 May 16 11:49 mint-iso
lrwxrwxrwx  1 ftp      ftp          33 Apr 29 2021 pub -> /var/www/html/www.kernel.org/pub/
drwxr-xr-x  7 ftp      ftp          4096 Oct 11 04:51 ubuntu
drwxr-xr-x  39 ftp     ftp          4096 Oct 11 05:37 ubuntu-cdimage
drwxr-xr-x  32 ftp     ftp          4096 Oct 11 07:24 ubuntu-cloudimages
drwxr-xr-x  7 ftp      ftp          4096 Oct 11 05:36 ubuntu-ports
drwxr-xr-x  16 ftp     ftp          4096 Oct 11 01:19 ubuntu-releases
drwxr-xr-x  25 ftp     ftp          303 Oct 11 07:10 video.fosdem.org
-rw-r--r--  1 ftp      ftp          390 Jul  9 2021 welcome.msg
drwxr-xr-x  4 ftp      ftp          4096 Jun 14 2023 www.kernel.org
```

Result: The anonymous FTP scanner successfully attempted connections to target hosts and tried to log in using the anonymous account.